

WHAT IS CLAIMED IS:

1. A color cathode ray tube comprising:

at least an electron gun, constituted by a cathode for forming a plurality of electron beams arranged in-line, and a focusing electrode and an anode constituting a main lens for focusing and accelerating said electron beams, and

a fluorescent screen;

wherein said focusing electrode and said anode are arranged in order from said cathode side toward said fluorescent screen side in an axial direction of the tube;

said focusing electrode includes at least a first division electrode and a second division electrode arranged with a gap for controlling a scanning speed of said electron beams in common;

said second division electrode is opposed to said anode and has, in an opposed surface thereof, a single opening for passing said plurality of electron beams in common;

a length of said first division electrode in the axial direction of the tube is longer than a length of said second division electrode in the axial direction of the tube; and

the length of said second division electrode in the axial direction of the tube is not smaller than a diameter of said single opening in the surface of said second division electrode in a direction at right angles with the in-line direction.

2. A color cathode ray tube according to claim 1, wherein the length of said second division electrode in the axial direction of the tube is not greater than 1.6 times the diameter of said single opening in the surface of said second division electrode in a direction at right angles with the in-line direction.

3. A color cathode ray tube according to claim 1, wherein said second division electrode is opposed to said first division electrode and has, in an opposed surface thereof, individual electron beam passing openings for respective electron beams.

4. A color cathode ray tube according to claim 3, wherein a diameter of said individual electron beam passing openings in the surface of said second division electrode opposed to said first division electrode is smaller than a diameter of said single opening in the surface of said second division electrode opposed to said anode in a direction at right angles with the in-line direction.

5. A color cathode ray tube according to claim 3, wherein individual electron beam passing openings for the respective electron beams are provided in at least two positions in said second division electrode in the axial direction of the tube.

6. A color cathode ray tube according to claim 5, wherein one of said two positions of said individual electron beam passing openings is provided at a position opposing to said first division electrode; and

the position of said individual electron beam passing openings opposing to said first division electrode is provided from said single opening within a range of about 1.6 times of the diameter of said single opening as defined in a diameter direction at a right angle with the in-line direction.

7. A color cathode ray tube according to claim 1, wherein said first division electrode is opposed to said second division electrode and has, in an opposed surface thereof, individual electron beam passing openings for the respective electron beams.

8. A color cathode ray tube according to claim 7, wherein a diameter of said individual electron beam passing openings in the surface of said first division electrode opposed to said second division electrode is smaller than a diameter of said single opening in the surface of said second division electrode opposed to said anode in a direction at right angles with the in-line direction.

9. A color cathode ray tube according to claim 1, wherein a focusing voltage that dynamically changes is applied to said second division electrode.

10. A color cathode ray tube according to claim 9, wherein differences between another focusing voltage applied to said first division electrode and said focusing voltage applied to said second division electrode are about 3 kV at the greatest.

11. A color cathode ray tube, comprising:
at least an electron gun, constituted by a cathode for forming a plurality of electron beams arranged in-line, and a focusing electrode and an anode constituting a main lens for focusing and accelerating said electron beams;
a fluorescent screen; and
a speed-modulation coil for controlling a scanning speed of said electron beams;

wherein said focusing electrode and said anode are arranged in order from said cathode side toward said fluorescent screen side in an axial direction of the tube;

said focusing electrode includes at least a first division electrode and a second division electrode arranged with a gap in the axial direction of the tube;

said second division electrode is opposed to said anode and has, in an opposed surface thereof, a single opening for passing said plurality of electron beams in common;

a length of said first division electrode in the axial direction of the tube is longer than a length of said second division electrode in the axial direction of the tube;

the length of said second division electrode in the axial direction of the tube is not smaller than the diameter of said single opening in the surface of said second division electrode in a direction at right angles with the in-line direction; and

said speed-modulation coil is installed surrounding a portion across said first division electrode and said second division electrode.

12. A color cathode ray tube according to claim 11, wherein the length of said second division electrode in the axial direction of the tube is not greater than 1.6 times of the diameter of said single opening in the surface of said second division electrode in a direction at right angles with the in-line direction.

13. A color cathode ray tube according to claim 11, wherein said second division electrode is opposed to said first division electrode and has, in an opposed surface thereof, individual electron beam passing openings for the respective electron beams.

14. A color cathode ray tube according to claim 13, wherein a diameter of said individual electron beam passing openings in the surface of said second division electrode opposed to said first division electrode is smaller than a diameter of said single opening in the surface of said second

division electrode opposed to said anode in a direction at right angles with the in-line direction.

15. A color cathode ray tube according to claim 13, wherein individual electron beam passing openings for the respective electron beams are provided in at least two positions in said second division electrode in the axial direction of the tube.

16. A color cathode ray tube according to claim 15, wherein one of said two positions of said individual electron beam passing openings is provided at a position opposing to said first division electrode; and

the position of said individual electron beam passing openings opposing to said first division electrode is provided from said single opening within a range of about 1.6 times of the diameter of said single opening as defined in a diameter direction at a right angle with the in-line direction.

17. A color cathode ray tube according to claim 11, wherein said first division electrode is opposed to said second division electrode and has, in an opposed surface thereof, individual electron beam passing openings for the respective electron beams.

18. A color cathode ray tube according to claim 17, wherein a diameter of said individual electron beam passing

openings in the surface of said first division electrode opposed to said second division electrode is smaller than a diameter of said single opening in the surface of said second division electrode opposed to said anode in a direction at right angles with the in-line direction.

19. A color cathode ray tube according to claim 11, wherein a focusing voltage that dynamically changes is applied to said second division electrode.

20. A color cathode ray tube according to claim 19, wherein differences between another focusing voltage applied to said first division electrode and said focusing voltage applied to said second division electrode are about 3 kV at the greatest.

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